

WHOLE WHEAT AND ENRICHED BREAD IN LEE COUNTY, NORTH CAROLINA

An Extension Case History

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I. The Objective and Problem

To improve the health of farm families, whose diets were deficient in essential vitamins.

II. The Extension Job

To improve the diet of the 80% of the 9,633 farm people in Lee County, North Carolina, who were using unenriched white flour and bread, by getting them to use whole wheat or enriched flour and bread.

III. The Situation

Only 20 percent of the farm families had been using whole wheat or enriched flour and bread before the Extension campaign was started on April 20, 1942. Surveys made in the schools showed many nutritional deficiencies among the children. In addition, the rejection of more than one-third of the men called for Selective Service emphasized the poor nutritional condition of the people.

Wheat was grown on practically every farm. It was ground into flour at some nearby mill. Very little flour (less than 10 percent) was used as whole wheat. Previous to the campaign only a few people in Lee County had heard of enriched flour. Even the merchants, when asked if they carried enriched flour, seemed never to have heard of it. They had paid no attention to the word ENRICHED on bags of flour. When a miller was approached about enriching the flour ground at his mill, he said, "Yes, I have been reading about it but it's all nonsense. Too much fuss and folks wouldn't pay what it cost anyway."

IV. The People

Seventy-two percent of the farm people are native white and 28 percent are colored. Most of them live on small farms (average size 70 acres), where the principal cash crops are tobacco and cotton. Almost 50 percent of the farm operators are tenants.

Only 23 percent of the farm people over 25 years of age have completed any schooling beyond the elementary grades. Twenty-three percent did not have radios, 61 percent did not take daily newspapers, and 35 percent did not have any type of car or truck. Previous to 1942, 30 percent of the families had never participated in Extension activities (attended a meeting or called at the office) and an additional 20 percent had reported only very occasional participation.

People generally did not like dark bread; they objected to the flavor, preferring fluffy white biscuits and bread. They did not know how to make good whole wheat baked products.

V. The Solution and Development of the Plan

As part of a national wartime program to promote the use of enriched flour and bread, Lee County was selected by national and State leaders as a "demonstration" county. The concurrence of the county Extension agents was obtained and through them the concurrence of the Lee County council of professional agricultural and home economics workers. It was agreed, however, that whole wheat as well as enriched flour and bread should be emphasized. This solution was selected because of research indicating that the diets of most people are low in the vitamin B complex, and that the easiest way to add sufficient B vitamins to the diet is through whole wheat or enriched bread.

VI. The Extension and Related Programs

The nutrition specialist prepared and assembled the material to be used in training the 190 neighborhood leaders and to be distributed by the leaders in the house-to-house canvass. The nutritionist also prepared articles for newspapers and participated in a radio broadcast.

The members of the Agricultural Workers' Council assumed the responsibility of training the leaders in specified areas of the county. Six community meetings and three neighborhood training meetings were held between April 20 and May 1, 1942, with an attendance of 89 leaders. To get complete coverage, leaders not attending these meetings were visited in their homes and given the information and the material that they were to take to all the homes in their neighborhood.

Neighborhood leaders were asked to visit the ten or fifteen families on their respective lists, explain the importance of eating whole wheat or enriched bread, and leave in every home the leaflet, "20 Questions on Enriched Flour and Bread."

Following the training meetings, a circular letter was sent to all neighborhood leaders, carefully outlining the job they were to do. A second follow-up letter, emphasizing some of the more important points and insisting that every family be contacted, was sent about a week later. About May 10, members of the Agricultural Workers' Council visited the chairmen of the neighborhood leaders in each neighborhood to "check up". The chairmen, in turn, visited other leaders in the neighborhood to get reports and make suggestions as to other procedure.

Dr. R. R. Williams, an eminent scientist whose work helped to make the enrichment of flour possible, visited the county. He made two talks - one attended by 12 members of the Agricultural Workers' Council and 57 neighborhood leaders and the other at the Kiwanis Club dinner meeting. Present at this dinner were 45 businessmen, including grocers, doctors, millers, and the newspaper editor.

Posters giving the comparison of food values of unenriched white and whole wheat flour were placed in grocery stores.

A circular letter prepared by the county extension agents was sent to all farm families in the county. It urged the use of whole wheat or enriched flour to protect the health of the family. This letter was followed later in the campaign by a card to all farm families re-emphasizing the value of whole wheat and enriched flour and bread.

Throughout the month of May newspapers published articles about the campaign. The local milling company and the grocery stores ran advertisements featuring whole wheat and enriched flour and bread.

A card was sent to all farm families telling them about the special radio broadcast and urging them to listen in. The broadcast was given over WPFT on May 14 by the Nutrition Specialist, county agent, and president of the Lee County home demonstration council.

Home demonstration club meetings for the month of May were devoted to the whole wheat and enriched bread program. With the use of a chart, the food value of a grain of wheat and what was lost in the making of white flour were discussed. Then followed a discussion of the enrichment of flour and bread. At these meetings the home agent demonstrated by the use of a small hand mill the making of whole grain cereal and flour and used the flour in the preparation of whole wheat biscuits or cookies. Two circulars, "Whole Wheat for the Whole Family" and "20 Questions on Enriched Flour and Bread" were distributed at the sixteen club meetings attended by 250 women.

#### VII. Results of the Program

The effectiveness of the campaign was best expressed by the miller who, on June 1, said, "I never saw anything take hold in this county like these vitamins." This miller who had started to enrich his flour just three weeks earlier, had sold 500 barrels. This was the same miller who in the beginning had said that it was all "nonsense." Lee County merchants had learned about enriched flour and have had it on their shelves since May 1942.

The first week in June (40 days after the campaign was started) a survey\* of the work showed that neighborhood leaders had visited and talked with 58 percent of the families. An additional 23 percent had heard about enriched bread at meetings or over the radio or had read about it in circular letters or newspapers. Fifty-three percent had heard the radio program and 43 percent had read news stories about enriched flour. When the survey was made 81 percent of the people had heard of the importance of eating whole wheat or enriched bread. Of those who had not done so previously, 45 percent had actually used whole wheat or enriched flour for the first time during May 1942.

In 1944, two years after the intensive campaign, one of the millers in Lee County reported that he enriches the flour for all farm people who request it (about 25%). Fifty percent of the flour sold by the grocers of the county in 1944 was enriched.

The campaign resulted not only in the enrichment of flour made by the local mills, but the mills in adjoining counties began an enrichment program.

\*A random sample of 172 families were personally interviewed.

## VIII. Significance of the Case

### Factors limiting the success of the program:

1. Farm people did not have a part in analyzing the problem or selecting the solution.
2. The need for better health was not generally felt and the importance of the solution was not generally accepted.
3. The one-month intensive campaign was not followed up over a longer period.
4. More people would probably have adopted the practice if period of time covered by the program had been longer.

### Factors contributing to the success of the program:

1. The practice to be adopted was simple and required only a minimum amount of effort and expenditure.
2. The message was taken by word of mouth to people who were unlikely to respond to printed material or to attend meetings.
3. Excellent coverage of the people was achieved, particularly through the personal visits of neighborhood leaders.
4. Many of the people received the message in several ways: personal visits, meeting, bulletins, circular letters, radio, news stories and posters.
5. Support of merchants and millers was obtained.

This case illustrates (1) that a relatively simple practice can be taken to a large and varied group of people in a short time by the neighborhood leaders organization, (2) that the use of other methods strengthens the program, and (3) that a reasonably high percentage of the people reached will adopt the practice.



